

CHAPTER 62-640 BIOSOLIDS

62-640.100	Scope, Intent, Purpose, and Applicability
62-640.200	Definitions
62-640.210	General Technical Guidance and Forms
62-640.300	General Requirements
62-640.400	Prohibitions
62-640.500	Nutrient Management Plan (NMP)
62-640.600	Pathogen Reduction and Vector Attraction Reduction
62-640.650	Monitoring, Record Keeping, Reporting, and Notification
62-640.700	Requirements for Land Application of Class AA, A, and B Biosolids
62-640.750	Agricultural Sites (Repealed)
62-640.800	Additional Requirements for Land Application at Reclamation Sites
62-640.850	Distribution and Marketing of – Class AA Biosolids
62-640.860	Other Solids
62-640.880	Additional Requirements Related to Biosolids Treatment Facilities

62-640.100 Scope, Intent, Purpose, and Applicability.

(1) All domestic wastewater treatment facilities which use biological treatment processes generate biosolids as a by-product of the treatment process. The Department finds that unregulated use, disposal, or land application of biosolids poses a threat to the environment and public health.

(a) It is the intent of the Department in this chapter to regulate the management, use, and land application of biosolids so as to ensure protection of the environment and public health, including minimizing the migration of nutrients, nitrogen and phosphorus that impair or contribute to the impairment of waterbodies.

(b) The Department encourages the highest levels of treatment, quality, and use for biosolids.

(c) The Department further encourages the beneficial use of biosolids in a manner which will foster public acceptance, as well as innovative and alternative uses for biosolids such as bioenergy-related uses.

(2) through (4) No change

(5) Applicability.

(a) Requirements in this chapter shall apply to domestic wastewater treatment facilities and biosolids management facilities that generate, treat, or manage biosolids.

(b) Requirements in this chapter shall also apply to applicors or distributors of biosolids or biosolids products, and to owners or operators of application sites which receive biosolids.

(c) Unless specifically provided otherwise in this chapter, requirements in this chapter shall apply to all septage management facilities that ~~treat more than 10,000 gallons per day monthly average daily flow or more than 20,000 gallons in a single day, and that~~ apply septage to agricultural sites or reclamation sites. Requirements in this chapter shall also apply to applicors of septage, and to operators or owners of an agricultural site or reclamation site which receive septage from facilities permitted under this chapter.

(d) Unless specifically provided otherwise in this chapter, requirements in this chapter that apply to biosolids shall also apply to septage from facilities regulated by the Department; to products derived from such septage, biosolids, or combinations thereof; and to the products and treated material from biosolids treatment facilities and septage management facilities regulated by the Department.

(e) Unless specifically provided otherwise in this chapter, requirements in this chapter shall apply to composting facilities, as defined by this chapter, which use yard trash, wood chips, or similar bulking agents, and apply the resulting compost to land or distribute and market the resulting compost.

(f) Facilities and biosolids application sites which have submitted a complete wastewater or biosolids site permit application, or which have received an initial permit before ~~August 29, 2010~~ (effective date of the rule), are considered to be existing facilities and existing sites and shall meet the requirements of this chapter in accordance with paragraphs (g) and (h), below.

(g) Unless specifically provided otherwise in this chapter, existing facilities in Florida shall comply with the requirements of this chapter at the time of renewal of the wastewater permit. ~~To facilitate the transition to land application site permits, for those~~

~~wastewater facility permits renewed between August 29, 2010 and January 1, 2013, the Department shall include compliance schedules to achieve compliance with the land application site permitting requirements included in Rules 62-640.300, 62-640.500, 62-640.650, 62-640.700, F.A.C., by no later than January 1, 2013. Any such renewed permits shall contain conditions for the land application of biosolids based on the provisions of Chapter 62-640, F.A.C., as amended on 3-30-98, hereby adopted and incorporated by reference, during the period of the compliance schedule. A copy of Chapter 62-640, F.A.C., as amended on 3-30-98, is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or any of the Department's District Offices.~~

(h) Existing biosolids application sites, whether permitted individually or under a facility permit in accordance with subparagraph 62-640.300(3)(a)2, shall meet the requirements of this chapter at the time of renewal of the biosolids application site permit or facility permit, but no later than within three years of (effective date of the rule). Regardless of paragraph (g), above, no later than January 1, 2013, all facilities that land apply biosolids shall use permitted application sites.

~~(i) After an application site is permitted, management and application of biosolids at the site shall be in accordance with the application site permit, which supersedes the site management and application requirements of any existing facility permits.~~

~~(i)(i) Biosolids or biosolids products which are generated outside of Florida but imported to Florida are subject to the provisions of this chapter beginning (effective date of the rule) August 29, 2010.~~

~~(j)(k) Requirements in this chapter do not apply to the treatment, management, or disposal of industrial sludges, septage, or residuals resulting from industrial wastewater treatment except as provided for in paragraphs 62-640.100(6)(f) and 62-640.880(2)(c), F.A.C.~~

(6) Other Applicable Rules.

(a) Biosolids land application within areas of the state where basin management action plans (BMAPs) have been adopted in accordance with Sections 403.067(7), and 373.807, F.S., shall be in accordance with the applicable BMAPs. Septage management facilities that treat 10,000 gallons per day or less on a monthly average daily flow basis and no more than 20,000 gallons in a single day are regulated by the Department of Health in accordance with Chapter 64E-6, F.A.C. Land application of septage treated by these facilities is also regulated by the Department of Health in accordance with Chapter 64E-6, F.A.C.

(b) through (h) No change

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.100, Amended 3-30-98, 8-29-10.

62-640.200 Definitions.

Terms used in this chapter shall have the meaning specified below. The meaning of any term not defined below may be taken from definitions in other rules of the Department.

(1) through (15) No change

(16) “Distribution and Marketing” is the giveaway or sale of biosolids meeting the criteria of Rule 62-640.850, F.A.C., or a product derived from such biosolids, either packaged or in bulk form, to another person by the owners or operators of treatment works or by a person who receives biosolids or biosolids products from treatment works.

(17) “Dry weight basis” means calculated on the basis of having been dried at 105 degrees Celsius until reaching a constant mass (i.e., essentially 100 percent solids content).

~~(18) “Existing application site” means a site approved for land application or land reclamation in a wastewater facility permit active on August 29, 2010 or included in a complete permit application submitted before August 29, 2010.~~

(19) through (24) renumbered (18) through (23) No change

~~(24)(25) “Incorporation” means the mixing of biosolids with topsoil by such means as discing, plowing, tilling, or equivalent means to reduce exposure to the biosolids. To meet the requirements for vector attraction reduction in accordance with Rule 62-640.600xxxx, incorporation shall be to a depth of at least four inches.~~

(26) through (40) renumbered (25) through (39) No change

(40) “Seasonal high water table” means

(41) “Septage” means a mixture of sludge, fatty materials, human feces, and wastewater removed during pumping of an onsite sewage treatment and disposal system. Excluded from this definition are the contents of portable toilets, holding tanks, and grease interceptors.

(42) “Septage management facility” means a stationary facility that treats only domestic septage or combinations of domestic septage, food establishment sludges, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marinas, and onsite sewage treatment and disposal systems, before use or land application. ~~Septage management facilities that are regulated by the Department are as described in paragraph 62-640.100(5)(e), F.A.C.~~

(43) through (51) No change

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.200, Amended 3-30-98, 8-29-10.

62-640.210 General Technical Guidance and Forms.

(1) Unless specifically referenced elsewhere in this chapter, the following publications are listed for informational purposes as technical guidance to assist facilities, applicors, distributors and marketers, site managers, and site owners in meeting the requirements of this chapter. Publications or portions of publications containing enforceable criteria are specifically referenced elsewhere in this chapter. Information in the publications listed below does not supersede the specific requirements of this chapter. Members of the public may request and obtain copies of the publications listed below by contacting the appropriate publisher at the address indicated. Copies of the publications are on file and available for review during normal business hours at the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and in the Department’s district and branch offices.

(a) U.S. Environmental Protection Agency, 1995, *Process Design Manual for Land Application of Sewage Sludge and Domestic Septage*, EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268, www.epa.gov.

(b) Title 40, Code of Federal Regulations, Protection of Environment, 1993, Part 503, “Standards for the Use and Disposal of Sewage Sludge,” revised as of October 22, 2015~~April 9, 2007~~ and effective on December 15, 2015~~April 25, 2007~~, www.gpoaccess.gov/cfr/index.html.

(c) through (k) No change

(l) USDA Natural Resources Conservation Service, ~~XXXX1999~~, “General Manual, Title 190, Part 402 – Nutrient Management,” USDA-NRCS, Washington, DC, www.nrcs.usda.gov/technical.

(m) USDA Natural Resources Conservation Service – Florida, 2012~~2007~~, “Field Office Technical Guide – Nutrient Management, Code 590”, USDA-NRCS-FL, Gainesville, Florida, www.fl.nrcs.usda.gov/technical.

(n) USDA Natural Resources Conservation Service – Florida, ~~XXXX2004~~, “Field Office Technical Guide – Waste Utilization, Code 633,” USDA-NRCS-FL, Gainesville, Florida, www.fl.nrcs.usda.gov/technical.

(o) Kidder, G. and R.D. Rhue, 2003, “Soil Testing,” UF/IFAS Circular 239, <http://edis.ifas.ufl.edu/SS156>.

(p) Mylavarapu, R.S. and E.D. Kennelley, ~~XXXX2009~~, “Extension Soil Testing Laboratory (ESTL) Analytical Procedure and Training Manual,” UF/IFAS Circular 1248, <http://edis.ifas.ufl.edu/SS312>.

(2) No change

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.210, Amended 3-30-98, 8-29-10.

62-640.300 General Requirements.

(1) through (2) No change

(3) Biosolids Application Site Permit.

(a) through (c) No change

(d) All biosolids application site permit applications shall be considered projects of heightened public interest in accordance with subparagraph 62-110(7)(a)1., F.A.C.

(d) through (e) renumbered (e) through (f) No change

(4) No change

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021,

62-640.500 Nutrient Management Plan (NMP).

(1) A site-specific NMP shall be submitted to the Department with the permit application for an agricultural site. For sites enrolled and participating in a Florida Department of Agriculture and Consumer Services (FDACS) Best Management Practices (BMP) program, a conservation plan or NMP prepared for the purposes of the BMP can be submitted as the site-specific NMP if the plan meets the NMP requirements given in subsections (4) through (8), below.

(2) USDA-NRCS-Florida Field Office Technical Guide – Nutrient Management, Code 590, November 2012~~September 2007~~, listed in paragraph 62-640.210(1)(m), F.A.C., is available to provide technical guidance in the preparation of NMPs from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices.

(3) The NMP shall be prepared and signed by a person certified by the NRCS for nutrient management planning or prepared, signed and sealed by a professional engineer licensed in the State of Florida.

(4) The NMP shall identify each application zone to be used at the site as identified in the Biosolids Site Permit Application, Form 62-640.210(2)(d). Application zones shall be sized to facilitate accurate accounting of nutrient and pollutant loadings and shall be in accordance with Rule 62-640.700, F.A.C., as applicable for the class(es) of biosolids that will be applied to the site.

(5) The NMP shall meet the requirements of this chapter and shall:

(a) Include aerial site photograph(s)/imagery or site map(s), and a soil survey map of the site;

(b) Include guidance for NMP implementation, site operation, maintenance, and recordkeeping;

(c) Include a description of how the NMP complies with any applicable basin management action plans (BMAPs) adopted under Sections 403.067(7), and 373.807, F.S.

~~(d)(e)~~ Include results of soil, water, compost, manure, organice by-product, plant tissue, and biosolids analyses, as applicable. The soil fertility testing used to develop the NMP shall be less than one year old;

~~(e)(d)~~ Specify~~Identify~~ the frequency interval for soil fertility testing. The interval shall be at least once annually~~every five years~~ with consideration for more frequent testing if increases in soil phosphorus levels are expected;

(f) Include a discussion of the risk associated with phosphorus accumulation and a proposed phosphorus draw-down strategy if the soil phosphorus levels are increasing on any application zones at the site,

(g) Include a discussion demonstrating that biosolids application at the site presents low risk for phosphorus transport from the site from leaching and runoff pathways;

(h) Location of designated sensitive areas and the associated nutrient application restrictions and setbacks;

(i) Establish specific rates of application of biosolids based on nitrogen and phosphorus as well as procedures to land apply biosolids and all other nutrient sources to each application zone. The NMP shall address application rates for the period covered by the effective and expiration dates of the biosolids site permit, at a minimum. The application rate shall be based on the more limiting nutrient, nitrogen or phosphorus, unless the applicant can provide reasonable assurance that applying at a higher rate is protective of water quality. As part of establishing the application rates, the NMP shall include the following items.

1. The NMP shall identify the recommended crop nutrient needs for nitrogen and phosphorus (i.e. crop nutrient demand) for the crops to be grown on each application zone based on IFAS recommendations or using the following values as a guide.

Crop	Nitrogen	Phosphorus (P2O5)
<u>Forage Crops (per active growing season)</u>		
<u>Improved perennial grasses</u>		
grazed	160	XX
hay or silage (assuming 4 harvests)	320	XX*
<u>Cool season annual grasses</u>		
(e.g., grazed small grains, ryegrass, fescue)	160	XX
<u>Warm season annual grasses</u>		
(e.g., sorghum-sudan hybrid or pearl millet)		
grazed	160	XX
hay or silage (4 harvests)	320	XX*

* - An additional 20 lbs of P₂O₅ may be applied per acre after each cutting of hay if the soil tests low or medium for phosphorus.

2. The NMP shall identify the current and planned plant production sequence or crop rotation for each application zone for the period of the biosolids site permit, at a minimum.

3. The NMP shall include realistic annual yield goals for each crop identified for each application zone.

4. The NMP shall include the soil phosphorus storage capacity index and soil phosphorus results from the most recent soil fertility testing for each application zone.

5. The NMP shall include a listing and quantification of all nutrient sources for each application zone, including any enhanced efficiency fertilizer products, if any.

6. The NMP shall include the percent water extractable phosphorus of each biosolids source (permittees may use a weighted average or estimated weighted average).

7. The crop nutrient needs for phosphorus may be adjusted as given in a. – b. below, based on the soil phosphorus storage capacity index and the biosolids percent water extractable phosphorus when determining biosolids application rates.

a. When the percent water extractable phosphorus of biosolids is less than 14%, one of the following may be used:

(I) When the soil phosphorus storage capacity index for an application zone is greater than 40 mg/kg, the percent water extractable phosphorus value for the biosolids being applied may be used to adjust the amount of phosphorus applied.

(II) When the soil phosphorus storage capacity index is at least 20 and up to 40, the amount of phosphorus may be doubled to adjust the amount of phosphorus applied.

(III) When soil phosphorus storage capacity index is greater than 0 but less than 20, the amount of phosphorus may be increased by 50 percent to adjust the amount of phosphorus applied.

(IV) When the soil phosphorus capacity index is less than 0, the amount of phosphorus shall not be adjusted.

b. When the percent water extractable phosphorus of biosolids is 14% or greater, the amount of phosphorus shall not be adjusted unless the the soil phosphorus storage capacity index is greater than 40, in which case the amount of phosphorus may be increased by 50 percent.

8. When considering the availability of nitrogen in biosolids, once the amount of plant available nitrogen to be supplied by biosolids has been determined (i.e. the crop nitrogen demand has been adjusted to take other sources of nitrogen into account), this amount may be multiplied by a factor of 1.5 (i.e. a 50 percent increase) to determine the amount of total nitrogen that may be supplied by biosolids

9. The calcium carbonate equivalency of any alkaline-treated biosolids and recommended lime application rates for each application zone.

10. Septage application rates for application zones with only septage application shall be no more than 40,000 gallons per acre per year for septage not containing food establishment sludge or no more than 30,000 gallons per acre per year if the septage includes food establishment sludge. Septage application rates for application zones with only septage application when the soil phosphours storage capacity index is less than 0 shall be no more than 12,000 gallons per acre per year.

11. The method of land application for each application zone; and,

12. The methodology and calculations used to determine the application rates for each application zone.

(e) Establish specific rates of application and procedures to land apply biosolids and all other nutrient sources to each application zone. The NMP shall address application rates for a projected five year period, at a minimum. As part of establishing the application rates, the NMP shall include:

1. A specific assessment of the potential for phosphorus movement from each application zone;

2. A listing and quantification of all nutrient sources for each application zone;

3. The availability of the nitrogen in the biosolids being applied, any nitrogen available from biosolids applications in previous years, and any nitrogen available in subsequent years covering the minimum five year period of the NMP;

4. The current and planned plant production sequence or crop rotation for each application zone for the next five years, at a minimum;

5. Realistic annual yield goals for each crop identified for each application zone;

6. The recommended nitrogen and phosphorus application rates (i.e. nutrient demand) for the crops to be grown on each application zone;

7. The calcium carbonate equivalency of any alkaline treated biosolids and recommended lime application rates for each

application zone,

8. The method of land application for each application zone; and,

9. The methodology and calculations used to determine the application rates for each application zone.

(6) When considering the availability of nitrogen in biosolids, the following shall be accepted by the Department:

(a) ~~The nitrogen calculation methods found in Chapter 7 of the U.S. Environmental Protection Agency *Process Design Manual for Land Application of Sewage Sludge and Domestic Septage*, which is hereby adopted and incorporated by reference. All calculations and values used in the calculations shall be fully documented and submitted with the NMP. These values shall include a complete nitrogen analysis (i.e. organic nitrogen (Org N), ammonium (NH₄ N), and nitrate (NO₃ N)) for all facilities that will use the site, or~~

(b) ~~In lieu of using the full calculation method for nitrogen in Chapter 7 of the U.S. Environmental Protection Agency *Process Design Manual for Land Application of Sewage Sludge and Domestic Septage*, once the amount of plant available nitrogen to be supplied by biosolids has been determined (i.e. the crop nitrogen demand has been adjusted to take other sources of nitrogen into account), this amount may be multiplied by a factor of 1.5 (i.e. a 50 percent increase) to determine the amount of total nitrogen that may be supplied by biosolids.~~

(7) through (8) renumbered (6) through (7) No change

(8) The NMP for a permitted biosolids land application site shall be reviewed annually and any revisions shall be provided to the Department. Revisions not requiring a minor permit revision in accordance with paragraph 62-640.300(3)(b), F.A.C., shall be provided to the Department with the site annual summary submitted in accordance with paragraph 62-640.650(5)(d), F.A.C., or earlier. Any revisions involving nutrient calculations shall be completed by a certified nutrient management planner or by a professional engineer licensed in the State of Florida.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.500, Amended 3-30-98, 8-29-10.

62-640.600 Pathogen Reduction and Vector Attraction Reduction.

All biosolids applied to the land or distributed and marketed shall be treated with a treatment process designed to reduce pathogens and achieve vector attraction reduction in accordance with the requirements of this section. The Department hereby adopts and incorporates by reference the pathogen and vector attraction reduction requirements of 40 C.F.R. 503.32 and 503.33, revised as of October 22, 2015~~April 9, 2007~~, and effective on December 15, 2015~~April 25, 2007~~, except for the site restrictions in 40 C.F.R. 503.32(b)(5), the septage requirements in 40 C.F.R. 503.32(c), and the vector attraction reduction requirements in 40 C.F.R. 503.33(b)(11) and 503.33(b)(12).

(1) Pathogen Reduction Requirements.

(a) Class AA and Class A Biosolids. Class AA and Class A biosolids shall meet one of the pathogen reduction requirements described in 40 C.F.R. 503.32(a)(3), (4), (5), (7), and (8). For treatment processes permitted under 40 C.F.R. 503.32(a)(5), a permittee shall not implement the provisions of 40 C.F.R. 503.32(a)(5)(ii)(D) and 503.32(a)(5)(iii)(D) until:

1. The permittee demonstrates to the Department, based on monitoring data from the facility, that the documented pathogen treatment process operating parameters reduce enteric viruses and viable helminth ova to levels below the limits specified in 40 C.F.R. 503.32(a)(5); and,

2. The permit is revised to specifically allow the permittee to implement 40 C.F.R. 503.32(a)(5)(ii)(D) and 503.32(a)(5)(iii)(D).

(b) Class B Biosolids. Class B Biosolids shall meet one of the pathogen reduction requirements described in 40 C.F.R. 503.32(b).

(c) Septage management facilities that are regulated by the Department, and that do not treat any amount of biosolids or food establishment sludge, shall satisfy Class B pathogen reduction requirements if sufficient lime is added to produce a pH of 12 for a minimum of two hours, ~~or a pH of 12.5 for a minimum of 30 minutes~~. Processes and design shall be in accordance with the guidance for lime stabilization of septage in Chapter 6, Process Design Manual for Sludge Treatment and Disposal, which the Department adopts and incorporates by reference. The pH shall be maintained at or above 11 until land application, ~~but shall be less than 12.5 at the time of land application~~. Materials treated in accordance with this provision shall be managed as Class B biosolids.

(2) Vector Attraction Reduction Requirements.

(a) All Class A and Class B biosolids shall meet one of the vector attraction reduction requirements in 40 C.F.R. 503.33(b)(1)

through (10).

(b) Class AA biosolids shall meet one of the vector attraction reduction requirements in 40 C.F.R. 503.33(b)(1) through (8).

(c) Septage management facilities that are regulated by the Department, and that do not treat any amount of biosolids or food establishment sludge satisfy vector attraction reduction requirements if the Class B pathogen reduction requirements of paragraph 62-640.600(1)(c), F.A.C. are met.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.600, Amended 3-30-98, 8-29-10.

62-640.650 Monitoring, Record Keeping, Reporting, and Notification.

(1) through (2) No change

(3) Monitoring Requirements.

(a) Biosolids Monitoring.

1. Biosolids sampling and analysis to monitor for the pathogen and vector attraction reduction requirements of Rule 62-640.600, F.A.C., and the parameters in subparagraph 62-640.650(3)(a)3., F.A.C., shall be conducted by the treatment facility in accordance with 40 C.F.R. 503.8, and the *POTW Sludge Sampling and Analysis Guidance Document*, August 1989, which the Department adopts and incorporates by reference. This document is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or any of the Department's District Offices. In cases where disagreements exist between 40 C.F.R. 503.8 and the *POTW Sludge Sampling and Analysis Guidance Document*, the requirements in 40 C.F.R. 503.8 will apply. Monitoring for water extractable phosphorus shall follow _____, Pennsylvania State University, which the Department adopts and incorporates by reference.

2. Permit applications for all treatment facilities that land apply or distribute and market biosolids shall identify the monitoring that will be conducted for all microbial and all operational and process parameters necessary to demonstrate compliance with the pathogen reduction and vector attraction reduction requirements of Rule 62-640.600, F.A.C. All operational and process parameters, such as time and temperature, number of windrow turnings, pH readings, etc., shall be monitored on a continual basis as applicable to the treatment process to demonstrate compliance with Rule 62-640.600, F.A.C.

3. All treatment facilities that land apply or distribute and market biosolids shall analyze biosolids for the following parameters, except as provided in paragraph 62-640.880(5)(a), F.A.C.:

Total Nitrogen	% dry weight basis
Total Phosphorus	% dry weight basis
Total Potassium	% dry weight basis
<u>Water Extractable Phosphorus</u>	<u>% dry weight basis</u>
Arsenic	mg/kg dry weight basis
Cadmium	mg/kg dry weight basis
Copper	mg/kg dry weight basis
Lead	mg/kg dry weight basis
Mercury	mg/kg dry weight basis
Molybdenum	mg/kg dry weight basis
Nickel	mg/kg dry weight basis
Selenium	mg/kg dry weight basis
Zinc	mg/kg dry weight basis
pH	standard units
Total Solids	%
Calcium Carbonate Equivalent*	% dry weight basis
*Only required for biosolids treated by alkaline addition	

4. through 6. No change

7. Monthly averages of parameter concentrations shall be determined by taking the arithmetic mean of all sample results for the month.

(b) Soil Monitoring.

1. The site permittee shall ensure soil fertility testing is conducted in accordance with the NMP. The soil fertility testing and results shall be equivalent to the “Phosphorus Index Test” as conducted by the University of Florida (UF)/Institute of Food and Agricultural Sciences (IFAS) Extension Soil Testing Laboratory. Soil testing shall follow the procedures in the IFAS publications “Soil Testing,” UF/IFAS Circular 239, September 2003, identified in paragraph 62-640.210(1)(o), F.A.C., and “Extension Soil Testing Laboratory (ESTL) Analytical Procedure and Training Manual,” UF/IFAS Circular 1248, February 2009, identified in paragraph 62-640.210(1)(p), F.A.C., which are hereby incorporated by reference. These documents are available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department’s District Offices. Results of soil fertility tests shall be included in the application site records.

2. Representative soil monitoring for parameters in subsection 62-640.700(5), F.A.C., shall be conducted at application sites for each application zone prior to application site permitting, except for sites only permitted for Class AA biosolids. At a minimum, one soil sample shall be taken for each application zone or for every 50 acres of application area, whichever is smaller. Each sample shall be a composite of at least ten random samples to a depth of six inches and shall be completely mixed to form a minimum one-pound sample. Sampling and analysis shall be in accordance with 40 C.F.R. 503.8(4), which is hereby incorporated by reference. Results of initial soil monitoring shall be reported on the Biosolids Site Permit Application, Form 62-640.210(2)(d).

(c) Ground Water Monitoring.

1. A ground water monitoring program shall be established by the site permittee, and approved by the Department for land application sites when the application rate in the NMP exceeds more than 100400 lbs/acre/year of plant available nitrogen or more than XX lbs/acre/year of total P2O5. When the application rates are below these amounts, the permittee shall allow the Department to install ground water monitoring wells at any time during the effective period of the Department-issued facility or land application site permit and conduct monitoring.

2. through 5. No change

(d) Surface Water Monitoring

1. The site permittee shall ensure surface water monitoring for total phosphorus, total nitrogen, and fecal coliform bacteria is conducted for sites when an application site is bordered or crossed by waters of the state and the application zone is located within 1000 feet of waters of the state, excluding wetlands.

2. If the receiving water is a stream or canal, the surface water monitoring shall be conducted on a quarterly basis at points 500 feet upstream and 500 feet downstream from where runoff from the application site enters state waters. If the receiving water is a lake, estuary, or coastal water, the surface water monitoring shall be conducted on a quarterly basis 500 feet downstream from where runoff enters the water body and at an approved background monitoring point.

~~(e)(d)~~ Any laboratory tests required by this chapter shall be performed by a laboratory certified in accordance with paragraph 62-620.610(18)(d), F.A.C. Sample collection required by this chapter shall be performed in accordance with paragraph 62-620.610(18)(e), F.A.C. The Specific Oxygen Uptake Rate (SOUR) test, as required by 40 C.F.R. 503.33(b)(4), shall be conducted within 15 minutes of sample collection and shall be performed by a certified laboratory or under the direction of an operator certified in accordance with Chapter 62-602, F.A.C.

(4) through (6) No change

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 3-30-98, Amended 8-29-10.

62-640.700 Requirements for Land Application of Class AA, A, and B Biosolids.

(1) through (5) No change

(6) General Application Site Requirements.

(a) Biosolids shall be applied with appropriate techniques and equipment to assure uniform application over the application zone.

(b) ~~Beginning within one year of August 29, 2010,~~ Class A and Class B biosolids treated by alkaline addition shall be applied by the best management practice of incorporation or injection unless the application area is located at a distance greater than one-quarter mile from the application site property line. This distance shall be decreased to the setback distance provided by subparagraph 62-640.700(8)(b)2., F.A.C., if the affected adjacent property owner provides written consent.

(c) Class A and Class B biosolids treated by alkaline addition shall be land applied within 24 hours of delivery to the site.

(d) The spraying of liquid domestic wastewater biosolids from an application vehicle shall be conducted so that the formation of aerosols is minimized. Unless specifically stated in the wastewater permit or site permit, spray guns shall not be used.

(e) Biosolids shall not be stored, stockpiled, or staged at a land application site for more than seven days unless approved by the Department pursuant to subparagraph 2., below.

1. All biosolids storage, stockpiling, or staging at land application sites shall:
 - a. Meet the applicable setback requirements for biosolids application sites in subsection 62-640.700(8), F.A.C.,
 - b. Not cause or contribute to runoff of biosolids, objectionable odors, or vector attraction; and,
 - c. For Class B biosolids, include fencing or other appropriate features to discourage the entry of animals and unauthorized persons.
2. The Department shall approve storage periods for longer than seven days if the following conditions are met:
 - a. The storage area and facilities are identified in the NMP and site permit application,
 - b. The applicable storage requirements of subparagraph 62-640.700(6)(e)1., F.A.C., are met,
 - c. All of the biosolids stored at the application site, up to the capacity of the onsite storage facilities, can be land applied without resulting in an exceedance of cumulative loading limits or the application rates established in the NMP,
 - d. The storage facilities are adequate for the rate of biosolids generated by permitted treatment facilities sending biosolids to the application site; ~~and,~~
 - e. A longer storage period is needed because of agricultural operations or climatic factors at the application site; and-
 - f. Measures to prevent leaching of nutrients are implemented.
3. In no case shall storage of biosolids exceed two years.
4. EPA's *Guide to Field Storage of Biosolids*, paragraph 62-640.210(1)(k), F.A.C., provides guidance to assist permittees in the field storage, stockpiling, and staging of biosolids.

(f) Class B biosolids application sites shall be posted with appropriate advisory signs in English and Spanish which identify the nature of the project area and comply with the following requirements.

1. Signs shall be posted at all entrances to land application sites in such a position as to be clearly noticeable. The words "Class B Biosolids Site" (in Spanish "Sitio con Biosólidos"), "Public Access Prohibited" (in Spanish "Prohibido el Acceso al Público"), and the name and contact information of the site manager shall appear prominently on the signs.
2. For unfenced application sites, additional signs shall be posted at the corners and at a maximum of 500 feet intervals along the boundaries of the application site or zones, and in such a position as to be clearly noticeable from outside the boundary line of the application site. The words "Public Access Prohibited" (in Spanish "Prohibido el Acceso al Público") shall appear prominently on the signs.
3. Letters on the signs for all required statements shall not be less than two inches in height. Signs shall be maintained and legible.

(7) through (8) No change

(9) The pH of the soil or the the biosolids soil mixture shall be 5.0 or greater at the time Class A or Class B biosolids are applied. At a minimum, soil pH testing shall be done annually.

(10) A minimum unsaturated soil depth of two feet is required between the depth of biosolids placement and the water table level at the time the Class A or Class B biosolids are applied to the soil. The permittee can indicate the seasonal high ground water level for the application site in the Biosolids Site Permit Application, Form 62-640.210(2)(d), by use of soil survey maps. If the seasonal high ground water level is within two feet of the depth of biosolids placement or cannot be determined at the time of permitting, the water table level shall be determined in one or more representative location(s) in the application zone before each application of biosolids, by measuring the water level in a water-table monitoring well or a piezometer. Biosolids shall not be applied on soils having a seasonal high ground water table less than 15 centimeters from the soil surface or within 15 centimeters of the intended depth of biosolids placement.

(11) through (12) No change

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.700, Amended 3-30-98, 8-29-10.

62-640.750 Agricultural Sites.

Rulemaking Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 3-30-98, Repealed 8-29-10.

62-640.800 Additional Requirements for Land Application at Reclamation Sites.

(1) through (4) No change

(5) Ground water and surface water monitoring shall be conducted for reclamation sites as provided in paragraphs 62-640.650(3)(c) and (d), F.A.C.

~~(6)(5)~~ In addition to the above requirements, land reclamation projects at mining reclamation sites shall be in compliance with any other applicable Department rules concerning mining reclamation.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.800, Amended 3-30-98, 8-29-10.

62-640.850 Distribution and Marketing of Class AA Biosolids.

The distribution and marketing of biosolids or biosolids products shall meet the requirements of this section and this chapter, but are not required to meet subsections 62-640.300(2) and (3); Rule 62-640.500; paragraphs 62-640.650(3)(b) through (d); 62-640.650(4)(c) through (j); 62-640.650(5)(c) through (e); 62-640.650(6)(a), (b), (f), and (g); subsections 62-640.700(1) through (4); 62-640.700(6) through (12); and Rule 62-640.800, F.A.C.

(1) Distributed and marketed biosolids or biosolids products shall meet the requirements for Class AA biosolids as defined in subsection 62-640.200(10), F.A.C.

(2) Distributed and marketed biosolids or biosolids products shall be distributed and marketed as a fertilizer in accordance with Chapter 576, F.S., ~~(XXXX)(2009)~~, and Chapter 5E-1, F.A.C., ~~XX-XX-XXXX-18-2010~~, both hereby adopted and incorporated by reference, or distributed and marketed to a person or entity that will sell or give-away the biosolids or biosolids products as a fertilizer or as a component of a fertilizer subject to Chapter 576, F.S., and Chapter 5E-1, F.A.C. Copies of Chapter 576, F.S., and Chapter 5E-1, F.A.C., are available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices. For the purposes of this chapter, biosolids composts that are distributed and marketed outside of the Lake Okeechobee, St. Lucie River, and Caloosahatchee River watersheds, as defined in Section 373.4595, F.S., do not have to be distributed and marketed as a fertilizer if the biosolids compost product is enrolled and certified under the U.S. Composting Council's (USCC) Seal of Testing Assurance (STA) program in effect on 5-20-2010, hereby adopted and incorporated by reference. A copy of the USCC STA program document is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or any of the Department's District Offices.

(3) Any treatment facility which produces biosolids in Florida that will be distributed and marketed or any person who delivers biosolids to Florida to be distributed and marketed shall submit the information listed in paragraph 62-640.850(3)(b), F.A.C., to the Department.

(a) The information shall be submitted as follows:

1. Florida facilities shall submit the information with the treatment facility permit application. The information shall be updated and re-submitted with each permit renewal application.

2. Persons shipping biosolids into Florida for distribution and marketing shall submit the information with the notification required by subsection 62-640.850(6), F.A.C. The information shall be updated and re-submitted every five years.

(b) The information shall include:

1. The Florida fertilizer license number assigned in accordance with Florida's Commercial Fertilizer Law, Chapter 576, F.S., (2009), and Chapter 5E-1, F.A.C., 1-18-2010, both hereby adopted and incorporated by reference, under which the biosolids or biosolids products will be distributed and marketed (copies of Chapter 576, F.S., and Chapter 5E-1, F.A.C., are available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices) or documentation showing proof of certification for biosolids composts enrolled in the USCC STA program in effect on 5-20-2010, hereby adopted and incorporated by reference (a copy of the USCC STA program document is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices),

2. The quantity and characteristics of the biosolids or biosolids products to be distributed and marketed annually,
 3. A description of the planned distribution and marketing operations, methods, and procedures,
 4. Procedures for transportation, storage, and application for the biosolids or biosolids products by the facility or person shipping biosolids into Florida for distribution and marketing,
 5. The label or information sheet to be provided at the time of distribution and marketing of the biosolids in accordance with subsection 62-640.850(5), F.A.C., Chapter 576, F.S., ~~(XXXX)(2009)~~, and Chapter 5E-1, F.A.C., ~~XX-XX-XXXX-18-2010~~, both hereby adopted and incorporated by reference, as applicable (copies of Chapter 576, F.S., and Chapter 5E-1, F.A.C., are available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices) or equivalent information for biosolid composts certified and enrolled in the USCC STA program in effect on 5-20-2010, hereby adopted and incorporated by reference (a copy of the USCC STA program document is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or any of the Department's District Offices),
 6. Management procedures for ensuring biosolids meet Class AA requirements prior to distribution and marketing, including procedures for notifying persons who received biosolids that failed to meet Class AA requirements; and,
 7. Contingency plans if the biosolids or biosolids products are not distributed or marketed as planned.
- (4) through (7) No change

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.850, Amended 3-30-98, 8-29-10.

62-640.880 Additional Requirements Related to Biosolids Treatment Facilities.

The requirements of this section shall apply to any facility that treats biosolids from other facilities prior to use, land application, or disposal. These requirements also apply to septage management facilities that treat domestic septage and combinations of food establishment sludges, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marina pumpout, or other onsite systems prior to use, land application, or disposal.

(1) No change

(a) through (i) No change

(j) Staffing. The level of operator staffing at a biosolids treatment facility shall be as follows:

	TYPE I*	TYPE II*	TYPE III*
A/AA**	Class A Operator	Class B Operator	Class B Operator
	8 hours/day	4 hours/day	2 hours/day
	5 days/week	5 days/week	5 days/week
B**	Class A Operator	Class B Operator	Class C Operator
	2 hours/day	1 hour/day	1 hour/day
	5 days/week	5 days/week	3 days/week
B***	Class A Operator	Class B Operator	Class C Operator
	1 hour/day	1 hour/day	1 hour/week
	5 days/week	3 days/week	

*Classification of Type of facility as determined by paragraph 62-640.880(2)(a), F.A.C.

**These letters correspond to the Class of pathogen reduction that is achieved by the biosolids treatment facility in accordance with subsection 62-640.600(1), F.A.C.

***This category is for Class B liquid alkaline stabilization only.

1. The operator classification requirements shall be in accordance with Chapter 62-699, F.A.C.

2. Operator staffing requirements for facilities addressed in paragraph 62-640.880(2)(d), F.A.C., shall be established as the more stringent of either the requirements in Chapter 62-699, F.A.C., or the requirements in paragraph 62-640.880(2)(j), F.A.C. For septage management facilities with a permitted capacity equivalent to 10,000 gallons per day or less, the Class C operator requirements given in paragraph 62-640.880(2)(j), F.A.C., may be substituted with a registered septic tank contractor or master septic tank contractor.

3. In addition to the above staffing requirements, other personnel that are trained in the treatment process and equipment being used, working under the direction of a certified operator, shall be present at the biosolids treatment facility during loading and unloading operations and during other operating hours as recommended in the preliminary design report.

4. If justified by the complexity of the treatment process, the Department shall require a higher classification, more frequent visits, or more hours per day. Requests to alter or decrease staffing requirements shall be made through a minor permit revision under Rule 62-620.325, F.A.C., and shall be based upon site-specific requirements, facility operation, risk to public health and the environment, and the presence of other trained personnel.

(k) The biosolids treatment facility permittee shall be responsible for making the facilities safe in terms of public health and safety at all times, and shall notify the Department and all affected parties, in writing, at least 60 days before ceasing operation in accordance with subsection 62-620.610(15), F.A.C.

(3) through (6) No change

Rulemaking Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 3-30-98, Amended 8-29-10.